

Title (en)  
COMPOSITE PANEL WITH INTEGRATED HEATER AND ASSOCIATED METHODS FOR MANUFACTURING

Title (de)  
VERBUNDPLATTE MIT INTEGRIERTEM HEIZER UND ZUGEHÖRIGE VERFAHREN ZUR HERSTELLUNG

Title (fr)  
PANNEAU COMPOSITE AVEC ÉLÉMENT CHAUFFANT INTÉGRÉ ET PROCÉDÉS ASSOCIÉS DE FABRICATION

Publication  
**EP 3067632 B1 20240221 (EN)**

Application  
**EP 16159893 A 20160311**

Priority  
US 201514656220 A 20150312

Abstract (en)  
[origin: EP3067632A1] Described herein is a composite panel that includes a first layer made from an electrically non-conductive material. The composite panel also includes a resistance heater printed onto the first layer. Further, the composite panel includes a second layer adjacent the resistance heater, the resistance heater being positioned between the first layer and the second layer. The second layer is made from an electrically non-conductive material.

IPC 8 full level  
**F24D 13/02** (2006.01); **B60N 2/56** (2006.01); **F24H 9/18** (2022.01); **H05B 1/02** (2006.01); **H05B 3/06** (2006.01); **H05B 3/08** (2006.01); **H05B 3/20** (2006.01); **H05B 3/34** (2006.01)

CPC (source: CN EP US)  
**B60N 2/5685** (2013.01 - EP); **B64C 1/10** (2013.01 - CN); **B64C 1/18** (2013.01 - CN); **F24D 13/022** (2013.01 - EP US); **F24H 9/1872** (2013.01 - EP US); **H01C 17/02** (2013.01 - US); **H01C 17/075** (2013.01 - US); **H05B 1/0236** (2013.01 - EP US); **H05B 1/0238** (2013.01 - EP US); **H05B 3/06** (2013.01 - EP US); **H05B 3/18** (2013.01 - US); **H05B 3/20** (2013.01 - EP US); **H05B 3/34** (2013.01 - EP US); **H05B 3/36** (2013.01 - CN); **F24D 2200/08** (2013.01 - EP US); **F24D 2220/2081** (2013.01 - EP US); **H05B 2203/013** (2013.01 - EP US); **H05B 2203/017** (2013.01 - CN EP US); **H05B 2203/02** (2013.01 - EP US); **H05B 2203/026** (2013.01 - EP US); **H05B 2203/029** (2013.01 - EP US); **H05B 2206/023** (2013.01 - EP US); **Y02B 30/00** (2013.01 - EP US)

Citation (examination)  
• US 2008083721 A1 20080410 - KAISERMAN TERRANCE [US], et al  
• US 6084217 A 20000704 - BULGAJEWSKI EDWARD [US]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3067632 A1 20160914**; **EP 3067632 B1 20240221**; BR 102016004479 A2 20160913; BR 102016004479 B1 20220913; CA 2919308 A1 20160912; CA 2919308 C 20210601; CN 105979618 A 20160928; CN 105979618 B 20210810; US 2016270152 A1 20160915; US 9736888 B2 20170815

DOCDB simple family (application)  
**EP 16159893 A 20160311**; BR 102016004479 A 20160229; CA 2919308 A 20160127; CN 201610086667 A 20160216; US 201514656220 A 20150312